

Parent/Family.

DERWENT-ACC-NO: 1997-272160
DERWENT-WEEK: 200305
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TITLE: Method of preparing or reinforcing existing structure using anisotropic woven fabric - enabling the repair or reinforcement of existing buildings and bridges made of concrete in low temperature environment and in short time

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PATENT-ASSIGNEE: MITSUBISHI RAYON CO LTD[MITR]

PRIORITY-DATA: 1996JP-0265940 (October 7, 1996) , 1995JP-0284751 (November 1, 1995) , 1995JP-0284752 (November 1, 1995) , 1996JP-0032473 (February 20, 1996) , 1996JP-0038048 (February 26, 1996) , 1996JP-0243495 (September 13, 1996) , 1996JP-0243496 (September 13, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES	MAIN-IPC	
CA 2236035 C	December 10, 2002	E
000	E01D 022/00	
WO 9716602 A1	May 9, 1997	J
046	E01D 022/00	
JP 09184304 A	July 15, 1997	N/A
008	E04G 023/02	
JP 09184305 A	July 15, 1997	N/A
008	E04G 023/02	
JP 09221919 A	August 26, 1997	N/A
006	E04G 023/02	
JP 09228186 A	September 2, 1997	N/A
007	D03D 015/00	
JP 10110536 A	April 28, 1998	N/A
007	E04G 023/02	
EP 859085 A1	August 19, 1998	E
000	E01D 022/00	
TW 332235 A	May 21, 1998	N/A

000	E04G 023/02	
KR 99067233 A	August 16, 1999	N/A
000	E01D 022/00	
US 20010004492	June 21, 2001	N/A
000	B32B 027/04	
A1	May 14, 2002	N/A
000	B32B 027/04	
US 6387479 B1	May 9, 1997	E
000	D03D 015/00	
CA 2399416 A1		

DESIGNATED-STATES: CA KR US AT BE CH DE DK ES FI FR GB GR
 IE IT LU MC NL PT SE D
 E FR GB

CITED-DOCUMENTS: JP 08158665; JP 6233973

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
CA 2236035C	N/A	1996CA-2236035
November 1, 1996		
CA 2236035C	N/A	1996WO-JP03208
November 1, 1996		
CA 2236035C	Based on	WO 9716602
N/A		
WO 9716602A1	N/A	1996WO-JP03208
November 1, 1996		
JP 09184304A	N/A	1996JP-0243495
September 13, 1996		
JP 09184305A	N/A	1996JP-0243496
September 13, 1996		
JP 09221919A	N/A	1996JP-0032473
February 20, 1996		
JP 09228186A	N/A	1996JP-0038048
February 26, 1996		
JP 10110536A	N/A	1996JP-0265940
October 7, 1996		
EP 859085A1	N/A	1996EP-0935523
November 1, 1996		
EP 859085A1	N/A	1996WO-JP03208
November 1, 1996		
EP 859085A1	Based on	WO 9716602
N/A		
TW 332235A	N/A	1996TW-0113943
November 14, 1996		
KR 99067233A	N/A	1996WO-JP03208

	November 1, 1996	
KR 99067233A	N/A	1998KR-0703190
	April 30, 1998	
KR 99067233A	Based on	WO 9716602
	N/A	
US20010004492A	Div ex	1996WO-JP03208
	November 1, 1996	
1	Div ex	1998US-0065098
	April 29, 1998	
US20010004492A	N/A	2001US-0759328
	January 16, 2001	
1	N/A	1996WO-JP03208
	November 1, 1996	
US20010004492A	N/A	1998US-0065098
	April 29, 1998	
1	Based on	WO 9716602
	N/A	
US 6387479B1	Div ex	1996CA-2236035
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US 6387479B1		
CA 2399416A1		
CA 2399416A1		

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 B29K033:04 ;
 B29K101:10 ; B29K105:08 ; B32B027/04 ; B32B027/12 ;
 C08J005/04 ;
 C09D133/04 ; C09D201/00 ; D03D015/00 ; D03D015/08 ;
 E01D021/00 ;
 E01D022/00 ; E04G023/02

ABSTRACTED-PUB-NO: US 6387479B

BASIC-ABSTRACT: A method of repairing/reinforcing existing structures comprises using a fibre-reinforced resin layer prepared by impregnating a sheet made from reinforcing a fibre with a resin and curing the resin. The above mentioned resin comprises a reactive mixture mainly composed of (1) a vinyl monomer, having a gelation time of 15 minutes or more at 25 deg. C and capable of being polymerised even at 5 deg. C and cured within 6 hours, and (2) a reactive vinyl oligomer and/or a thermoplastic polymer. The anisotropic woven fabric

used for the above mentioned repairing/reinforcing method comprises a sheet wherein the reinforcing fibres are aligned in one direction, and heat-fusible fibres are aligned at a right angles to the reinforcing fibre with an interval of 3-15 mm.

USE - The method is useful for repairing/reinforcing existing structures such as buildings, bridges and, in particular, concrete structures. An anisotropic woven fabric is used for this method.

ADVANTAGE - The method is capable of repairing/reinforcing existing buildings, bridges etc. in a low temperature environment and in a short time.

ABSTRACTED-PUB-NO: US20010004492A

EQUIVALENT-ABSTRACTS: A method of repairing/reinforcing existing structures comprises using a fibre-reinforced resin layer prepared by impregnating a sheet made from reinforcing a fibre with a resin and curing the resin. The above mentioned resin comprises a reactive mixture mainly composed of (1) a vinyl monomer, having a gelation time of 15 minutes or more at 25 deg. C and capable of being polymerised even at 5 deg. C and cured within 6 hours, and (2) a reactive vinyl oligomer and/or a thermoplastic polymer. The anisotropic woven fabric used for the above mentioned repairing/reinforcing method comprises a sheet wherein the reinforcing fibres are aligned in one direction, and heat-fusible fibres are aligned at a right angles to the reinforcing fibre with an interval of 3-15 mm.

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ADVANTAGE - The method is capable of repairing/reinforcing existing buildings, bridges etc. in a low temperature environment and in a short time.

A method of repairing/reinforcing existing structures comprises using a fibre-reinforced resin layer prepared by impregnating a sheet made from reinforcing a fibre with a resin and curing the resin. The above mentioned resin comprises a reactive mixture mainly composed of (1) a vinyl monomer, having a gelation time of 15 minutes or more at 25 deg. C and capable of being polymerised even at 5 deg. C and cured within 6 hours, and (2) a reactive vinyl oligomer and/or a thermoplastic polymer. The anisotropic woven fabric used for the above mentioned repairing/reinforcing method comprises a sheet wherein the reinforcing fibres are aligned in one direction, and heat-fusible fibres are aligned at a right angles to the reinforcing fibre with an interval of 3-15 mm.

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WO 9716602A

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

METHOD PREPARATION REINFORCED EXIST STRUCTURE ANISOTROPE
WOVEN FABRIC ENABLE
REPAIR REINFORCED EXIST BUILD BRIDGE MADE CONCRETE LOW
TEMPERATURE ENVIRONMENT
SHORT TIME

DERWENT-CLASS: A14 A21 A32 A93 P73 Q41 Q46

CPI-CODES: A08-C01; A08-R01; A10-E07B; A11-B09C; A11-C02;
A12-R01; A12-R01A;
A12-S08F;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

018 ; G0339*R G0260 G0022 D01 D12 D10 D26 D51 D53 D63
F41 F89 ;
G0908 G0873 G0817 D01 D51 D54 D57 D63 G0339*R G0260
G0022 D12 D10
D26 D53 F41 F89 D11 F34 H0204 ; L9999 L2528 L2506

Polymer Index [1.2]

018 ; G0384*R G0339 G0260 G0022 D01 D12 D10 D26 D51 D53
D58 D63
F41 F89 G0351*R G0340 D11 D87 G0895*R G0873 G0817 D54
D57 D90 F90
; H0033 H0011 ; L9999 L2528 L2506 ; P0088

Polymer Index [1.3]

018 ; ND01 ; ND07 ; N9999 N6042*R ; N9999 N6917 ; Q9999
Q6826*R
; Q9999 Q7023 Q6995 ; Q9999 Q7001 Q6995 ; K9892 ; B9999
B4091*R
B3838 B3747 ; B9999 B3554*R

Polymer Index [1.4]

018 ; R00610 D01 D19 D18 D32 D50 D63 D76 D93 F42 ; C999
C088*R C000
; C999 C293

Polymer Index [1.5]

018 ; G2891 D00 Si 4A ; R05086 D00 D09 C* 4A ; A999
A419 ; A999
A771 ; S9999 S1194 S1161 S1070

Polymer Index [1.6]

018 ; R05257 G2982 G0384 G0339 G0260 G0022 D01 D11 D10
D12 D26 D51
D53 D58 D63 D90 F41 F86 F87 ; A999 A033

Polymer Index [2.1]

018 ; P0839*R F41 D01 D63 ; M9999 M2017 ; M9999 M2186 ;
M9999 M2813
; H0191

Polymer Index [2.2]

018 ; R00554 G1343 G1310 G4024 D01 D19 D18 D31 D50 D60
D76 D88 F37
F35 E00 E19 ; R00470 G1161 G1150 G1149 G1092 D01 D11
D10 D19 D18
D32 D50 D76 D93 F32 F30 ; H0022 H0011 ; H0293 ; P0851

P1978 P0839
H0293 F41 D01 D18 D63 ; M9999 M2017 ; M9999 M2186 ;
M9999 M2813
; H0191
Polymer Index [3.1]
018 ; P0635*R F70 D01 ; S9999 S1194 S1161 S1070 ; A999
A782 ; A999
A419
Polymer Index [3.2]
018 ; R00326 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53
D58 D82 ;
R00835 G0566 G0022 D01 D11 D10 D12 D51 D53 D58 D63 D84
F41 F89 ;
H0022 H0011 ; S9999 S1194 S1161 S1070 ; A999 A782 ;
A999 A419 ;
P1150 ; P1310

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1997-087620

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